Doctoral Student in Biology

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Lunds Universitet, naturvetenskapliga fakulteten, biologiska institutionen

Lund University was founded in 1666 and is repeatedly ranked among the world’s top 100 universities. The University has 40 000 students and 7 600 staff based in Lund, Helsingborg and Malmö. We are united in our efforts to understand, explain and improve our world and the human condition.

The Faculty of Science conducts research and education within Biology, Astronomy, Physics, Geosciences, Chemistry, Mathematics and Environmental Sciences. The Faculty is organized into nine departments, gathered in the northern campus area. The Faculty has approximately 1500 students, 330 PhD students and 700 employees.

Two PhD positions are currently available in the Evolutionary Ecology of Plant-Insect Interactions research group (EEPII) at Lund University (https://www.biology.lu.se/research/research-groups/evolutionary-ecology-of-plant-insect-interactions).

The EEPII research strives to understand the evolutionary forces driving diversification and adaptation in species interactions among plants and plant-feeding insects. We combine genomic, evolutionary and ecological studies to ask and answer questions about the distribution, diversification and conservation of biodiversity within and among species, and in particular how these patterns and processes are affected by the interaction between plants and insects. Our research bridges the gap between zoology and botany by integrating studies of animal- and plant biodiversity.


We strongly encourage interested candidates to apply for both positions. Please note that this requires two separate applications.

Project description

One major challenge in biology is to understand how microevolutionary processes generate macroevolutionary patterns. The Lund University research group on the Evolutionary Ecology of Plant-Insect Interactions (EEPII) studies plants and plant-feeding insects, as phylogenetic studies indicate that speciation in these groups is driven by divergent specialization in traits of importance for the species interaction. This doctoral project focuses on the evolution of floral scent, a complex trait of crucial importance for plant-insect interactions, using two species that each vary geographically among populations in their floral scent signal (Arabis alpina and Lithophragma bolanderi). The doctoral student will apply a combination of field studies, crossing experiments, chemical ecology and genomics to investigate how floral scent is diversified in natural populations. In particular, we test how a striking floral scent variation among populations relates to geographic variation in their interaction with antagonist and mutualist insects.

Work description

The PhD candidate will combine field studies on plant-insect interactions, greenhouse crossing experiments, genomic analyses, and studies of insect behavior, aimed at understanding the evolution of floral signaling diversification in the plant species Arabis alpina and Lithophragma bolanderi. PhD advisor is Dr. Magne Friberg, who is co-PI of the Lund University EEPII research group. The group comprises three senior scientists, 4 postdocs, 5 PhD candidates (including this position) and numerous MSc students.
Qualifications

Requirements:

- To be eligible the applicant must hold a University degree equivalent to a MSc in a biological discipline, and a strong background in evolutionary ecology. The degree should include some form of statistics courses.
- The applicant must be proficient in spoken and written English.
- The candidate is expected to have obtained a driver's license (valid in Sweden) within 6 months of the employment.

Meriting:

- A genuine interest in evolutionary biology and an interest in science and a future academic career are meriting, and a course background with evolutionary and coevolutionary perspectives on plant-insect interactions is appreciated.
- Experiences from independent field-studies of plants and insects, as well as greenhouse crossing experiments, floral scent analyses and molecular genetic studies are meriting.
- A strong scientific motivation and cooperative ability are also of high importance.

Eligibility

Students with basic eligibility for third-cycle studies are those who- have completed a second-cycle degree- have completed courses of at least 240 credits, of which at least 60 credits are from second-cycle courses, or- have acquired largely equivalent knowledge in some other way, in Sweden or abroad.

The employment of doctoral students is regulated in the Swedish Code of Statues 1998: 80. Only those who are or have been admitted to PhD-studies may be appointed to doctoral studentships. When an appointment to a doctoral studentship is made, the ability of the student to benefit from PhD-studies shall primarily be taken into account. In addition to devoting themselves to their studies, those appointed to doctoral studentships may be required to work with educational tasks, research and administration, in accordance with specific regulations in the ordinance.

Type of employment

Limit of tenure, four years according to HF 5 kap 7§.

Lund University welcomes applicants with diverse backgrounds and experiences. We regard gender equality and diversity as a strength and an asset. We kindly decline all sales and marketing contacts.

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Type of employment  Temporary position longer than 6 months

First day of employment  2020-02-01 or in accordance to agreement

Salary  Monthly salary

Number of positions  1

Working hours  100

City  Lund